

THE NEW ZEALAND BEEKEEPER



OFFICIAL ORGAN of the
NATIONAL BEEKEEPERS' ASSOCIATION
OF NEW ZEALAND

*(An Organisation for the advancement of
the Beekeeping Industry in New Zealand)*

Better Beekeeping

Better Marketing

The New Zealand BEEKEEPER

Published Quarterly on the 20th January, April, July and October,
by the National Beekeepers' Association of New Zealand.
Gilbert S. Kirker, Editor.

Subscription, 2/- per annum, post free; 6d. per copy.

VOL. I, No. 4.

October 20, 1939.

EDITORIAL.

National Emergency

Since our last number, the Dominion has declared war and a state of emergency now obtains. Needless to say, beekeepers will join with the members of other industries in affording to the Government all possible support and in maintaining production at its greatest limit. It is possible that a number of beekeepers will be required to serve with the Dominion's armed forces and no doubt all Branches of the Association will follow the example set by the South Auckland Branch which called a special meeting to consider this aspect recently.

A resolution was adopted by the Branch to the effect that in the case of any of its members being called up and not being able to make private arrangements for the care of his bees, the members of the Branch pledge themselves to do their best to look after his interests. The Branch Executive and the local Apiary Instructor were appointed a committee to act as required in the meantime.

The Branch suggests, as a basis for working bees on shares, that the owner should receive one third of the honey-cheque and the person working the bees should receive two thirds and stand all costs. The Branch has also requested any member or retired beekeeper who would be willing to assist in the district to submit his name to the Branch.

Part-time Inspection

The announcement by the Department of Agriculture that the system of Part-time Inspection is being introduced this season is heartening and is an indication that the officers of the Department are alive to the fact that more rigorous steps are necessary

than have been operative during the past several years.

There is no doubt that foul brood has not been adequately controlled when the most active measures should be taken to ensure its elimination from the Dominion. New Zealand is a comparatively small country and the difficulty in securing the eradication of disease should not present the same problems that apply in countries having a much greater area. The importation of bees and bee gear is quite well controlled and the possibility of re-infection through importations is negligible. There can be no disputing that, provided all cases of disease were destroyed on sight, it could be eliminated.

It is now illegal for bees to be kept in other than proper moveable frame hives and the corollary to that is that all bees discovered in other than proper hives (e.g., walls of buildings, hollow trees, &c.) should be destroyed. It has been suggested that even if all domestic and commercial hives were maintained in a clean condition, wild hives would still spread the disease. This is not necessarily true as diseased wild hives must necessarily die out in time, and the wax moth (otherwise a pest and named as a disease in the Regulations) speedily destroys neglected combs and, with them, the spores of disease. To this extent, the wax moth performs a very valuable service to the apiarist.

Disease is not spread to any extent by the wild hive. It is spread invariably by the in-expert beekeeper who tries to clean up disease and yet keep his bees and gear. Commercial beekeepers are rapidly becoming unanimous in the opinion that it never pays to "treat" disease, but that it always pays to burn it—bees, combs, and even lids, bottom boards and supers in many instances.

This Season's Honey

It is particularly important that the Marketing Division secures the maximum quantity of honey this year, so that the full use of it can be obtained under the present conditions. While it is confidently expected that the producers will co-operate in this direction, the Honey Section's Circular No. 11, which has been mailed for the urgent attention of producers, contains a definite hint that, failing producers meeting the request of the Division to send to the packing depot every possible portion of their crops, the authorities will not fail to take other measures which will ensure that the Division is not short-circuited as regards honey supplies.

Compulsion might have the effect of cancelling price-cutting among producers and, to that extent, might not be entirely undesirable, but it is more than likely that the Division's method of approaching producers will have the anticipated result.

It is particularly desired to have a quantity of honey arriving in Auckland in December and further deliveries in January, after which, of course, normal supplies would be expected.

Apart from the reduction of overhead brought about by keeping the packing plant working continuously through having early supplies coming in, the Division will be enabled more easily to retain important markets, besides getting the full use of the honey economically and financially, if producers lend their co-operation and get early honey shipped to the depot.

The Division has taken one step in the right direction by removing the penalty deduction of one sixteenth of a penny per lb. on liquid honey sent in. Honey is honey, liquid or granulated, and, in the liquid state, involves very little more care in handling if an efficient organisation is in being to cope with it than in its solid state, whilst the cost of processing to bring it to a liquid state for blending and packing must be slightly less than when received in granulated form. A state of emergency can apparently speed up the bringing about of improvements and it seems that this is one step forward which probably would not have eventuated in normal circumstances.

Producers will hope that the one sixteenth of a penny per lb. deduction is something which will not be reintroduced in the future. In the past it was admittedly a charge on the hard-up producer who needed a honey cheque quickly and that producer was the very one who could least afford such a tax on his returns. In fact, the charge was a parallel to the sugar tax, which falls most heavily on the beekeeper who has had such a poor season that his bees must be fed, whilst the more prosperous producer nets a fat return and pays no tax on either sugar or liquid honey. And, in any case, the producer requiring early finance must pay extra for special containers to carry his liquid honey.

There are other ways in which the Division can do more to ensure supplies of honey being received and we have already given some space to these factors in these columns. Producers would like to be assured that the next season's pro rata payment will not be less than previously (4½d.) and indeed, we think it should be more, in view of the past performances of the late N.Z. Honey Ltd. and the Division itself, both of which have paid out a total of 6d. per lb. pro rata in the immediate past several seasons. If producers were to be promised an initial pay-out of 6d. or even 5½d. pro rata they would send the Division their crops rather than sell to merchants for less, as happened last summer.

Also, the Division should widely publish its prices for honey to merchants and retailers so as to afford some guide to those producers who prefer to dispose of their crops or part of their crops through such media. It is probable that this step would have the effect of eliminating the type of absurd selling of top-grade honeys at sacrificial prices such as occurred at the beginning of last season, when a number of merchants (particularly in the South Island) made a much greater harvest than the misguided beekeepers who fell for their baits.

Generally speaking, the producers can be counted on to do their bit at this time. It is up to the Division to show rather more initiative than has been evidenced to the beekeeper, both as regards securing considerable quantities of first class early South Island honey last season and organis-

ing in a satisfactory manner the marketing of beeswax more recently, despite the taking of a census of wax stocks held in the Dominion.

We urge producers to co-operate to the fullest extent, particularly in existing circumstances, by sending in by the end of this month advices of the proportion of their crop they are prepared to send to the Marketing Division and, later, by letting the Division have quantitative estimates of the honey they expect to have available for the Division to handle. Also, we hope the Division will take the suggested further steps to bring about the desired result.

Beeswax.

A remit "That in the event importations of wax are allowed this should be done through the Marketing Division and all profits credited to the Honey Section," was referred to the Marketing Division after the Conference at Hastings last June. This received a polite acknowledgement at the time and following on the impression conveyed by the Director to the Conference it was assumed that licenses would not be necessary and would not be granted.

It was with some concern therefore that beekeepers learned during August that licenses to import had been granted and that wax was being imported at from 10d. to 1/- per lb. On contact being made with the Marketing Division the intimation was received that while it was the intention of the Marketing Division to become the sole importer of beeswax if further stocks were required, after a very complete survey at approximately the time of the Annual Conference, it was considered desirable to grant a small portion of the licenses which had been applied for.

The Director also gave expression to the following pious hope:—"While it is not anticipated that further quantities will be required, I do trust that the industry itself will see that beeswax is offered to manufacturers from time to time in order that there is no holdup in manufacturing generally."

In our last number we published an editorial referring to a survey being made by the Division. The statement "It is now felt that all the beeswax necessary for the country's requirements should be available from bee-

keepers in the Dominion and importation should therefore be unnecessary" was published at the request of the Division.

It is only reasonable to assume that the census which was taken by the Division (the "very complete survey" already quoted) was with a view to organizing supplies of wax for the benefit of users, and yet there are producers still holding large stocks (in some cases over a ton) who have completed the questionnaire submitted by the Division and who have not yet had a single enquiry for supplies from a manufacturer. Pending receipt of enquiries for wax, the question of price can hardly be considered to enter into the matter and it cannot be contended that it is because producers have asked for more than "what might be termed reasonable" that recourse had to be had to importation.

Under the circumstances, beekeepers are not at all pleased with the way the Division has handled the wax situation and many Branches of the Association have passed resolutions expressing resentment over the granting of licenses to import in view of the lack of any evidence indicating a shortage.

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CORRESPONDENCE.

GUARANTEED PRICE?

Sir,—With regard to the Editorial in the last number of the Journal, relating to guaranteeing 6d per lb., I personally did not read into this the support of the guaranteed price principle, but that an intimation that 6d per lb. would be paid by the Division would result in the Division receiving more honey (which at present the merchants are securing). However, if it is intended to support a guaranteed price, I think this has not received the discussion necessary before advocating it in the Journal, and, moreover, consider the present a most inopportune time, in view of world conditions involving increased costs and rising prices, to introduce this subject.

As members of the Auckland Central Branch have thought the article endorses the guaranteed price principle, I should be pleased if you would clarify the point in the next number.

Yours, etc.,

J. R. BARBER.

Richardson Road,
Mt. Roskill,
Auckland, S.3.

[We are not in favour of a guaranteed price for either honey or wax. What is wanted is some stabilisation of prices, however, and it was intended to suggest that if the Marketing Division could offer an initial payment of 6d per pound pro rata, instead of 4½d as at present, there would be more inducement to producers to send their honey to the Honey Section rather than to sell it through merchants. This would tend to check price-cutting to a large extent, and would also serve to consolidate the Division's position by the elimination of some competition now met with from producers and merchants.—Editor.]

PRICE CUTTING.

Sir,—I admit that there may be reasons unknown to me that may justify

the present system of the Marketing Division selling to merchants at a fixed price while leaving producers free to undercut. The season just closed has enabled the Division to pay out 6d for 100% quality and probably make a profit because of the general scarcity.

I am not at this juncture hopeful that they will be equally successful in a normal year or a year of plenty. You will never cure the price-cutters with whom I am acquainted, nor persuade them to ask for the prices quoted by the Department unless there is an enforceable penalty for cutting. The ½d tax is not nearly heavy enough to deter them. I have to admit that the cutting producers who sold direct to the grocers in Southland this year at ½d below the merchants' prices to grocers would, after paying the tax, net more money than if they had sent their honey to the grade store. That being the case, what hope is there of persuading them to discontinue direct selling? I think it will increase.

One of the difficulties that stands in the way of having a change in selling policy by the Marketing Division is that while they are able to show a profit on what they handle they are not likely to be interfered with from above, and complaints from below can be ignored. The real loss falls on the men who keep the Division supplied with honey, and no inconvenience or monetary loss falls on the Departmental heads as a result of a faulty system.

I think the most hopeful thing I read in the last number of the Journal is that full accounts of the business of the Honey Section will in due course be presented to Parliament and will be made available to the General Executive after such presentation. That return should make most interesting reading. Yours, etc.,

"PRODUCER."

[We shall be pleased to publish other views on this subject, which is of interest to all producers.—Editor.]

STANDARDISATION AND GRADING OF HONEY.

(By T. S. WINTER, Chief Honey Grader.)

One is often asked who is responsible for the fixing of honey standards.

Honey standards are really created by the consuming public. By their purchases over a period of years, the trade is able to gauge fairly accurately the class of honey required for all markets. Commercial interests could not dictate the class of honey that shall be bought, and do not attempt to do so.

A careful check is kept on the likes and dislikes of the consuming public, and from the knowledge gained standards are set. Grading which follows is a reflection of these standards, and is most necessary to facilitate trade.

No better explanation of grading and standardisation of honey can be given than that published by Britain's Ministry of Agriculture, as follows:—

Owing to the wide variation in quality which occurs in honey, as in all agricultural produce, grading is essential to efficient marketing. It also sets the producer a standard at which to aim, and thus stimulates an improvement in the quality of production. Grading is essential to the establishment of confidence in the buyer; only by the purchase of graded produce can the buyer be reasonably certain of minimising risk and avoiding disappointment and waste. It facilitates both buying and selling. It enables the seller to meet consistently the requirements of his various customers in respect of quality; the more effective the grading, the less the necessity for inspection by the buyer before purchase.

Grading enables the different qualities of a commodity to be marketed where the demand exists for them; thus, low-grade honey which may not repay the packing, transit, and storage charges involved in distribution for retail sale, can be sold in bulk for manufacturing purposes.

To be of maximum value, grading should be carried out to national specifications. The establishment or fixing of specifications, to be followed in the

grading of goods for market, is known as standardisation.

Although individual producers may devise their own rules or standards, the term standardisation is commonly given a wider meaning to indicate national uniformity, the idea being that produce of one grade bought at different places and at different times, from different sellers, will be of one and the same quality if the trade and the good name have been standardised throughout the country.

Standardisation provides a basis for comparable price quotation. An urgent need in the marketing of home-produced honey is an efficient service of market intelligence; the development of such a service pre-supposes the existence of standard grades. Standardisation also facilitates the extension of credit by external financing agencies to producers on their produce.

Standardised goods, particularly when packed in standard containers, have a wider actual and potential market than non-standardised goods. It follows that standardisation in conjunction with the use of grade or trade marks is an essential basis for advertisement. That seems to explain fully the necessity and the benefits to be gained by standardisation and grading, and is the considered opinion of the British Ministry of Agriculture.

As you know, our honey is now graded under three headings—namely, Flavour, Colour, and Condition. This was made possible by the Internal Marketing Division passing on to beekeepers the direct benefit of the repacking system which deals with the granulation of all honey repacked for retail trade.

While grain, coarse or fine, is not taken into consideration for reasons already stated, the nature of the granulated state of spoiled honeys becomes a factor. Spoiled honey is usually honey that has passed through a melting process to separate it from

wax cappings and has been very much overheated.

Excessive or prolonged heating drives off the natural liquid and moisture content of honey, and gives it a caramel flavour, also an undesirable toughness of body. This condition is quite obvious in granulated honey, while in liquid form the same condition is detected by its dull colour, caramel flavour, and abnormally heavy body.

Honey overheated to the point where the natural flavour has been destroyed completely cannot be accepted.

Flavour.

To gain the maximum points possible for flavour for the class of honey stored by his bees, the beekeeper must exercise every care not to introduce foreign flavours at packing time. Unclean utensils should be avoided, and anything giving off an unpleasant odour should be removed from the extracting room.

It should be noted that while honey can always be sold at a price if the flavour is good, it cannot always be sold on colour. That is to say that dark-coloured honey will find a market if the flavour is good or medium, whereas white or the best coloured light ambers will not sell at any price if the flavour is extra strong.

Colour.

The only way colour can be impaired is by overheating or the introduction of foreign matter. Propolis will sometimes cause trouble if it is scraped in large quantities from the frames down into the cappings and warmed up with the honey when the cappings are dealt with.

Discolouration of the honey takes place little or much according to the nature of the propolis. Flavour, too, may be impaired in this way.

Condition.

Although condition is not rated so high as flavour or colour, it is really the first consideration of the grader. The slightest objectionable feature under this heading will cause rejection, irrespective of other qualities. There is, however, sufficient room in the new grading system for penalties for preventable defects.

Honey must reach the required standard for water content. Any honey below 1.420 specific gravity is rejected.

Surface specks of wax and pollen or any foreign matters, air-bubbles, dull colour condition, and poor body all carry penalties.

Poor body may be caused in two ways—low specific gravity, which indicates an excess of moisture, or by an excess of laevulose.

The former condition may be avoided by extracting only capped honey and careful storage to prevent the absorption of moisture, while the latter depends on the class of nectar gathered by the bees.

Variations in the proportion of dextrose and laevulose that occur in honey produce a corresponding influence on the viscosity (body). A honey may be perfectly ripe and yet contain a high percentage of laevulose which reduces the viscosity. Conversely, evenly balanced ripe honey has a good body, which is a sure sign of its good keeping quality.

The standard 1.42 specific gravity represents a 17.6 moisture content. The late Mr. Isaac Hopkins set that standard, which has been accepted for New Zealand honeys, as it was found by experience that honey of lower specific gravity had a tendency to ferment more readily.

Although honey packing as a whole is carried on in New Zealand in an excellent manner, there is still room for improvement to ensure that all honey of good quality is submitted for grading in good condition.

It is sometimes noticed that honey apparently in good condition at the time of grading tends to sour and ferment after a few months' storage, especially under warm weather conditions.

There is no doubt that such honey has been contaminated in some way during extracting and packing operations or has been stored under unfavourable conditions.

The possibility of infection in this way was made the subject of investigation by A. G. Lockhead, Division of Bacteriology, Ottawa.

Examinations made of the interior of tanks and pipe lines showed that these may represent more or less serious sources of infection.

Further investigation showed that honey fermenting yeasts are present in the field flowers, apiary soil, and to a certain degree the honey in the hives.

In Flowers.—Out of 44 examinations made, all but three gave positive results. Three proved identical with types already reported from fermented honey.

Hive Honey.—Fifty-seven examinations made showed that in every sample of nectar there was evidence of the presence of sugar tolerant yeasts capable of causing fermentation.

Soils.—66% of samples taken over a period of 12 months showed definite signs of fermentation in soil taken from old apiary ground. New apiary ground, 24% of samples taken.

Orchard ground	....	....	Nil
Clover field	....	....	Nil
Flower garden	....	....	Nil
Cereal field	....	....	Nil

It appears reasonable to conclude that in the apiary the soil becomes more or less rapidly contaminated with yeast from droppings of wax, nectar, and from dead bees. The soil apparently serves as a resting place for honey fermenting yeasts.

So you see how important it is to keep all utensils as sterile as possible; especially should the wash bucket be emptied and thoroughly washed clean of every trace of honey and water every day. Also, the floor mop should be attended to; otherwise

they soon sour and become a source of active infection.

The ordinary yeasts, if the honey be properly ripened and, in New Zealand honeys, granulated even and firm, cannot grow, but in thin unripe honey they multiply readily and cause fermentation.

By the way, just in case there are readers who eat honey and who do not keep bees, it is pointed out—to avoid any possible misunderstanding—that actual multiplication or growth of bacteria in honey is regarded as impossible or extremely improbable. Through a happy combination of circumstances—namely, acidity and high density—honey may be regarded as practically immune from bacterial action.

Honey may also be spoiled by added moisture absorbed while the honey is exposed to a damp atmosphere or accidentally introduced by the beekeeper during extracting operations. This condition is revealed by the thin light body in either liquid or granulated samples. If honey is exposed after granulation takes place, a watery film develops on the surface which is unmistakable.

There is another aspect to this question. Honey ferments more readily in a soft or semi-granulated state, if such condition is a permanent feature. This condition can be brought about either by added moisture, excessive air-bubbles, or by stirring when the honey has already commenced to granulate.

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SEMI-RADIAL EXTRACTOR.

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New Zealand beekeepers are all familiar with the basket and the radial types of extractors, but the semi-radial, which incorporates the better features of both, is not so well known. The following is a description as briefly outlined by the inventor and manufacturer.

The semi-radial extractor is based on the fact that honey or any other liquid is drawn more readily from a small container such as the honey-comb cell when the line of pull is at an angle to the cell.

This may be illustrated by a simple experiment. Fill a discharged .22 rifle cartridge with water. Turn it upside down. If the sides and edges of the cartridge are dry, the force of gravitation is not sufficient to draw down the water. This is partly because it attempts to come out whole like a cork out of a bottle, leaving a vacuum at the base. Now try it in a horizontal position. The water may come out, but not readily. It will drip out most readily if the container is in a position midway between the vertical and the horizontal. The reason is quite obvious. In this position the water runs out on one side and the air enters at the other filling the vacuum at the cell base.

This experiment corresponds exactly to what happens in a honey extractor. The water is replaced by honey and gravitation is replaced by centrifugal force or pull exerted by rotating the reel.

In practice, the above theory proves to be exactly correct. In the semi-radial extractor, the honey is extracted clean and fast at a much lower rotation speed than in any of the old fashioned machines and there is less strain on the combs.

The angular set of the cells is achieved by packing the comb baskets close together in the reel, causing them to overlap one another. Then they can swing only halfway outward to either side. Provision is made to prevent honey from one comb flying

on to the back of another next in line by the insertion of interceptors or separator shields of metal.

Further advantages include the fact that more frames are contained in a drum. The semi-radial 12-frame drum is about the same size as the old 4-frame, while the 21-frame size is only that of the old 8-frame drum. Spray has been considerably reduced by reason of the lower rotation speed, while actual extraction is much faster than with any other type of machine and jar in reversing has been practically eliminated.

In the first two years of manufacture, various mistakes in construction were found. For instance, it was found to be an easy matter to make a machine that would reverse combs when the reel was travelling at top speed, but experience proved that this was rough on combs so the maker now sticks to stop-reversing. Reversing is very easy, as the baskets have only half as far to travel as in the old basket type of extractor.

The development of migratory beekeeping made it evident that a strong drum was needed and semi-radial machines will stand a tremendous amount of rough handling in travelling from site to site. Three years' practical work among Australian bee-farmers has resulted in the general perfecting of the machines and all parts are now standardized.

The semi-radial extractor is covered by patents granted or pending in principal countries, while the U.S.A. rights have been acquired by The A.I. Root Co., Medina, Ohio.

BEEKEEPING IN AUSTRALIA.

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Australia.

ASSOCIATION MATTERS

Since the Annual Conference, representations have been made to various authorities along the lines of a number of remits which were adopted at the Conference.

Hygienic Production and Handling of Honey: The Department of Health has advised that the representations set out in the remit submitted along the lines of the Hawke's Bay Branch remit will receive full consideration.

Transport Department: The Commissioner of Transport and Oil Fuel Controller has acknowledged three letters. The first mentions that provision exists whereby any cases where special hardship exists as a result of the motor spirit restrictions can be the subject of further representation to the Local Oil Fuel Controller in any district. This question arose when petrol restrictions were first introduced and it appeared that beekeeping was not listed among the essential industries so that some producers found it not easy to obtain licenses for all the petrol they required for the proper functioning of their businesses.

Other letters refer to heavy traffic licenses and state that the case put forward by the Association will receive full and careful consideration, while the legislation covered by the Transport Law Amendment Bill which was adopted by Parliament during the session just completed and which provides for the exemption of farmers from certain licensing requirements is considered to include beekeepers as farmers. The exemptions will therefore also apply to beekeepers.

Foul Brood: The Director of the Horticulture Division writes relative to the remit: "That representations be made to the Government for alteration to the Apiaries Act to provide for the destruction on sight of foul brood and all bees discovered in other than proper hives"—

The suggested amendment to the Act would probably react with undue severity on commercial beekeepers, where infected hives were found by the Apiary Instructor, as similar action would have to apply irrespec-

tive of whether the Apiary was of a commercial or domestic nature.

It is considered that many apiarists would prefer to treat foul brood, and should be afforded the opportunity of doing so, where the Apiary Instructor considers this course practicable.

The Act in its present form provides full power for drastic steps to be taken where this is considered essential, but at the same time the Instructors are empowered to exercise discretion as to the course to be followed in suppressing the menace of foul brood.

The Department is loath to further provide the Instructors with increased arbitrary powers, as it is felt that ample provision, judiciously applied, exists for the safeguarding against the incidence of this disease.

The fact is that this proposal emanated from commercial producers who are only too well aware of the fact that disease has been in the Dominion for over twenty years and the powers conferred by the present Act have not so far been successful in stamping out the disease. Drastic complaints call for drastic remedies and most commercial producers have come to the conclusion that it does not pay to "treat" disease. There is only one cure and that is burning immediately the disease is uncovered. The Director has not mentioned any reason why the Department is not in favour of the compulsory destruction of all bees discovered in other than proper hives.

Senior Apiary Instructor: "The appointment of a Senior Apiary Instructor to fill the vacancy caused by the retirement of Mr. E. A. Earp has been held over in the meantime."

District Supervisors: The Director of the Horticulture Division, acknowledging the General Secretary's communications on this subject, writes:—

"It appears to me that there is a misunderstanding of the position relative to the relationship between the Apiary Instructors and the District Supervisors in the minds of beekeepers.

"In brief, the position is that the Instructor enjoys similar freedom of

action as existed previously, with the added advantage that he has more ready access to the Supervisor to obtain rulings connected with Departmental procedure, etc., than previously, when he had to communicate with the Head Office at Wellington.

"The Instructor will no doubt miss the visits of the Senior Apiary Instructor to the district, but, on the other hand, the Instructor has, under present conditions, the opportunity of demonstrating his ability of dealing with matters which arise pertaining to the industry in the district. I feel confident that each Instructor will give of his best to those engaged in the industry as in the past in directing producers along sound lines in the production and in the preparation of the honey for market."

Factories Act: Following the last Conference, when a remit was carried to the effect that representations should be made to the Government that the provisions of the Factories Act should be waived in its application to the premises of beekeepers, information has come to hand through the

good offices of the Director of the Horticulture Division indicating that:

"The Labour Department's instructions are that the extraction and packing of honey is to be regarded as farm work as long as carried out for the occupier only. In the event of extraction and packing work being done for other apiarists, registration as a factory is insisted upon.

"Therefore, the only premises treated as subject to the Factories Act are those where work is done otherwise than for the actual owner of the apiary."

This statement should clear the position most satisfactorily in the minds of many beekeepers.

JOURNAL FINANCE:—As the General Executive has not been able to secure a definite assurance that the Government subsidy on subscriptions, which was received from the Honey Control Board last year, will be renewed this year, it has been necessary to cut down the size of this issue of the Journal. In the event the subsidy is not received, it will not be possible to continue publication, in which case, balance to subscriptions directly paid for the Journal only (not Association subscriptions) will be refunded.

HIVE MATS

ALL HIVES SHOULD HAVE MATS

The National Beekeepers' Association of N.Z. has been appointed sole agent for distribution of Hive Mats for the season 1939/40 by New Zealand Woolpacks & Textiles Limited, Foxton.

Beekeepers requiring mats for their hives should place their orders through their Branch Secretaries, for transmission to the General Secretary.

1½d. per Mat. Delivery not less than bale lots, F.O.R., Foxton.

BRANCH ACTIVITIES

The Branches of the National Beekeepers' Association in Otago and Southland, together with the District Horticultural Supervisor, Mr. G. Stratford, and the Apiary Instructor for the district, Mr. D. S. Robinson, made an endeavour to hold a series of meetings in the district, trying to work up more interest in the National Beekeepers' Association, and for something fresh tried Winter Field Days (indoors). Meetings were arranged at Milton, Balclutha, Tapanui, Gore, Woodlands and Winton, starting July 24th. The idea was to show various beekeeping appliances for criticism and discussion; samples of honey granulated and liquid (previously graded) were to be displayed for comparison and the Pfund colour grader was to be demonstrated, together with talks on general matters.

Messrs. Stratford and Robinson left Dunedin early on the morning of the 24th, and the weather was bitterly cold. Before reaching Balclutha a heavy fall of snow was encountered, making driving difficult and dangerous. However a hot meal at Gore restored personal comfort and the apiary of Messrs. Griffin Bros., Woodlands, was reached about 1.30 p.m., when proceedings started. What the attendance lacked in numbers was made up in enthusiasm. The appliances, etc., were shown and discussions entered into. A welcome afternoon tea was provided by Mrs. C. Griffin. The country by now was heavily coated with snow and it was still snowing.

At Invercargill, the morning of the 25th showed us a very cold, white world, and after much difficulty chains were borrowed for the car. Winton was the venue and in spite of grave warnings that we might not get through we decided to "give it a go," and arrived there safely after a few skids in the snow. The hall booked for the "do" was too cold and the party adjourned to the honey house of Mr. W. Watson, which was pleasantly heated. Here a good meeting was held on the same lines as at

Woodlands but, in spite of the snow and cold, there was a good attendance. Mr. Watson provided refreshments, which were thoroughly appreciated. We all arrived home safely, although several had to dig their cars out of snow drifts.

26th—still snowing and country roads blocked in many places with drifts often up to 17 feet deep. Road surfaces were like glass but with our borrowed chains and care we managed to make Gore without mishap. Local beekeepers were communicated with by telephone but the majority said they were well snowed in and could not get to Gore. The meeting was about to be declared "off," but a few enthusiasts rolled up—or should I say "slid up"—and proceedings started. Quite a good attendance was recorded and an interesting and instructive afternoon held. Afternoon tea was provided by the Gore Branch of the National Beekeepers' Association and this was much enjoyed.

During the afternoon around Gore the thaw set in rapidly and we found ourselves held up by floods in the immediate neighbourhood and snow drifts beyond. The train service was suspended, and, unfortunately, other meetings arranged had to be cancelled. We had to leave the car and, after being marooned at Gore, managed to get back to Dunedin by train late on the night of the 28th.

It was most unfortunate that we were unable to complete the tour as arranged—Mr. Stratford being particularly keen on meeting the beekeepers and discussing their problems, this being the first opportunity he has had of meeting many of them.

As far as we can ascertain this has been the first winter rally attempted by the National Beekeepers' Association and we did get several new members but it was ill luck that it coincided with the heaviest fall of snow recorded in Otago and Southland for over fifty years. However, better luck next time!

TWENTY-FOUR BRANCHES.

With the formation of the East Coast Branch last month, the Association now has twice as many Branches as fifteen months ago. An interesting report from the East Coast has come to hand which indicates the value of having Branches in all beekeeping areas of the Dominion. The services of the Apiary Instructors are also eulogized.

"Beekeeping in this locality in the past has been of a very primitive order—box hives in almost every instance. Thanks to the assistance of Mr. Westbrooke in transferring several of these into frame-hives and for his most interesting and instructive field days and addresses, that we have any bees left in the district. There must still be hundreds of box nives that are not known to any of us, but with this new body keen to talk "bees," many of these offenders will be got in touch with and transferred to frames or cleaned up."

MANAWATU BRANCH.

At a meeting on 25th September, one member mentioned that he had 100lb. wax on hand and had no enquiries for same. The Branch passed a resolution endorsing the remit adopted at Conference calling for any importations of wax to be done by the Marketing Division, all profits to be credited to the Honey Section.

A resolution on Sugar Duty was also adopted, which read:—

"That while we appreciate the Government's assistance to the industry in the matter of orderly marketing of honey, we would point out that orderly marketing in itself does not assist the beekeeper in seasons when no crop is produced, and remission of the duty on all sugar used for feeding bees is requested. It is contended that this tax is an unfair one in that beekeepers feed sugar when crops have failed so that the worse off they are the more sugar they require (and the more taxation they are called on to pay on this item) which results in an inversion of the usual principles of

taxation by which one pays proportionately to his returns."

A further resolution read:—"That we support the Executive in the resolution re destroying disease on sight and all bees discovered in other than proper hives."

WAIMARINO BRANCH.

At the usual monthly meeting held September 21, the following resolution was passed:—"That we approve of the general principle of permits being required for the establishment of apiary sites and are of the opinion that small beekeepers already established should be protected against overcrowding."

CENTRAL OTAGO

General snow and the petrol restrictions tended to delay the holding of meetings of the Branch earlier in the year. Central Otago has had a peculiar winter. There was only a short period of intense cold, but a long period when the ground was covered with snow, particularly above the 1000 feet line, where snow lay for over a month. However, the bees seem none the worse. Spring is three to four weeks later than usual this year.

SOUTHLAND BRANCH.

In conjunction with the Department of Agriculture, a series of meetings was arranged for Branches south of Dunedin, those concerning this Branch being held on Monday, July 24, at the workshop of Messrs. Griffin Bros., Woodlands, and Tuesday, July 25, at the honeyhouse of Mr. Watson, Winton.

Unfortunately, owing to severe weather conditions, only a few enthusiasts were able to attend each meeting. Mr. D. S. Robinson demonstrated the Pfund colour grader and exhibited a collection of honey in liquid and corresponding granulated form. At both meetings, many gadgets and useful appliances were exhibited and demonstrated, those present deriving an en-

joyable and profitable afternoon. Mr. Stratford, the District Supervisor of the Department of Agriculture for Otago and Southland, addressed the meetings, explaining the new conditions under which the Departments were working, assuring the beekeepers of his desire to assist them in every way possible, and pointing out the reasons for increased efficiency in dealing with all district matters.

Mr. L. K. Griffin was congratulated on being elected Dominion Vice-President of the Association, and the Departmental officers were thanked for their co-operation in making the meetings possible. Votes of thanks were passed to the hosts for the welcome provision of afternoon teas.

WEST OTAGO

At a meeting held last month, a number of resolutions endorsing remits adopted at Conference were carried. A resolution along the lines of Manawatu's on Sugar Duty was carried unanimously. The remit on Control of Apiary Sites was endorsed as was the proposal that importations of wax should be through the Marketing Division. The following also was carried:—"That the Government be requested to alter the Apiaries Act to provide for the destruction on sight of foul brood and all bees discovered in other than proper hives."

AUCKLAND CENTRAL.

Membership of the Branch is growing rapidly and is now above the 40 mark. Mr. T. S. Winter, Chief Honey Grader, gave an interesting talk at a recent meeting (reproduced elsewhere) and we were fortunate in having the Chairman of the Honey Control Board, Mr. W. W. Nelson, give us a talk on his recent trip to Australia. Miss Thorp has promised to send in her talk "How to Increase the Hive Population to Meet the Honeyflow" for a future number of the Journal.

SOUTH AUCKLAND.

Control of Apiary Sites was a subject of discussion at a meeting of the Branch on September 18, and the Branch reaffirmed its remit to the Conference of the previous June.

The Branch also carried a resolution urging the General Executive to do all possible to get the tax removed from sugar used for bee-feed. Beeswax was the subject of a resolution: "That we convey to the Minister of Marketing our resentment over the granting of licenses to import beeswax in view of the lack of any evidence indicating a shortage."

Mr. Fix, Apiary Instructor, reported on arrangements made to put the system of Part-time Inspection into operation, ten men being recommended to cover the district.

A discussion took place as to the best way of helping any member who might be called up for active service and suitable arrangements were made to meet such a contingency.

Finance for the Journal was discussed in committee and then Mr. W. W. Nelson gave a short resume of his recent trip to Australia.

NORTH TARANAKI BRANCH.

At the September meeting of the North Taranaki Branch of the National Beekeepers' Association held in New Plymouth, there was a large attendance. The Dominion General Secretary (Mr. G. S. Kirker) gave a most enlightening talk on the recent annual Conference. Various remits were thoroughly discussed, especially part-time inspectors for dealing with disease in bees and the reorganisation of the apiary section of the Department of Agriculture.

Mr. Kirker also brought to the notice of the meeting a new method of dealing with wax moth at present being tried out in the U.S.A. He hoped to obtain further information.

Mr. H. F. Dodson (Government Apiary Instructor) gave an interesting address on handling bees, dealing with the subject from all angles. Among

the points brought out in Mr. Dodson's address were the times and conditions under which the amateur and the experienced men could respectively handle their bees, the necessity for equipment being in good order. The two main points to be kept in mind were that all movements should be smooth and deliberate.

HONEY OUTPUT.

East Coast Prospects.

ENTHUSIASM IN RUATORIA.

Old Illegal Box-Hives.

Start With Modern Type.

There are bright prospects for the production of honey on a comprehensive scale in parts of the East Coast territory, according to observations made during the past few days by Mr. G. V. Westbrooke, Government Apiary Instructor stationed at Hastings.

Until a short time ago, a number of residents and farmers of the dis-

trict had been interested in bees, but they had kept the old illegal box hives. However, following the visit of the instructor they took a great interest in the establishment of hives of the approved type, and there appeared to be prospects of a great extension in the industry in that area, the formation of a Branch of the National Beekeepers' Association being a step in this direction.

Mr. Westbrooke was in the Ruatoria district throughout last week, and in an address he gave there he said there appeared to be a good future for honey production in the district if the owners of the present illegal and wasteful box hives were prepared to adopt up-to-date and economical methods.

Encouraging Production.

He had found that a fairly large number of persons in the district each kept a few hives, but practically were all box hives without frames. Such hives had been illegal for many years, he stated, and it had been the custom to burn them immediately.

However, under the present war conditions he felt that he would be



At Norsewood, Hawkes Bay, July 25, 1939.

acting in accordance with the approval of the Minister of Agriculture to encourage production by extending a little latitude if the owners were prepared to do their part by putting the bees under modern conditions. He promised to do everything possible to assist them to become good beekeepers.

The meeting, which was presided over by Mr. E. Morice, made arrangements for a demonstration by the instructor for the transference of box hives to frame hives on the following day, when a number of enthusiastic box-hive owners attended to watch with keen interest the manner of operation and the method of handling the bees. The onlookers, on finding how to control the bees, soon discarded their protecting veils and assisted in transferring the bees from six old box hives.

Election of Officers.

Later several beekeepers gathered with Mr. Westbrooke, and decided to form the East Coast Branch of the National Beekeepers' Association. The

following officers were elected: President, Mr. E. Morice; Vice-President, Mr. J. Brock; Secretary and Treasurer, Mr. W. H. O. Johnstone; Committee, Messrs. Hoare, H. Thatcher, C. Woodford, P. Richards and Gardner. It was decided to hold meetings on the fourth Friday of each month.

Mr. Westbrooke said he would endeavour to be present to give an address at the November meeting, and he congratulated them on the action they had taken. He also remarked that he was pleased that the district was practically free from foul brood.

Flavour in honey is not necessarily a test of quality, since taste is usually a matter of personal preference, which in turn is largely a matter of the flavour to which one has been accustomed.

Unless in a tightly sealed container, honey should be stored in a dry place; otherwise it is likely to absorb moisture from the atmosphere and ferment, as will any other sugar syrup.

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TIN, GOLD LACQUERED, or PLAIN
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N.Z. HONEY CONTROL BOARD

With the opening of the season, many beekeepers will now be ordering their supply of containers. Under existing regulations, beekeepers are free either to send their honey forward in bulk to the Honey Section of the Internal Marketing Division or sell direct to the local trade subject to stamps being affixed to all containers.

The market position last season was not altogether satisfactory, due to a considerable amount of honey being sold early in the season at prices well below the ruling market level. This created dissatisfaction and lack of confidence in the trade. Buyers naturally were slow to accept supplies at a higher price level than that paid by their competitors who bought direct from the beekeepers.

Certain live dealers showed more confidence in the regulations and in the efforts made to stabilize the market than those beekeepers who sacrificed their honey to dealers. It is well known that certain dealers "turned over" large stocks of honey a few months after date of purchase at a figure that showed them almost as great a margin in profit as the beekeepers in question got for the honey.

It is to be hoped that beekeepers will profit by their experience of last season and either maintain a price level in line with that quoted by the Marketing Division or, if that is not possible, send their honey in bulk direct to the Honey Section.

The Honey Control Board will not support any move that may appear to

take an unfair advantage of the war situation or a temporary shortage of honey to boost prices above the level that will give a payable return to the beekeepers.

The Board is just as strongly against unfair competitive selling and the exploitation of temporary difficulties of the beekeepers by speculative interests and, should the practice continue to any extent, the Board will not hesitate to recommend that action be taken to stop it.

The restrictions on sugar, together with marketing arrangements made by the Internal Marketing Division, are bringing about a steady increase in the consumption of honey. It is in the general interest, not only of the beekeeping industry, but of the health of the whole community that this increase in honey consumption should fully be maintained when peace is once more established and honey must again meet the strong competition of other foods that will be more plentiful than they are at the present time.

In this connection, the policy of the Board will be to support whatever action may be necessary to have honey recognized as an essential food and kept well to the fore when selling conditions, for the reasons indicated, will be more difficult than they are at the present time.

WALLACE NELSON,

Chairman,

N.Z. Honey Control Board.

BEE AS POLLINATOR.

The honey bee is particularly serviceable as a pollinator. It more or less hibernates during the winter season in the adult form and is active when the fruit trees are in blossom, other insects being in the chrysalis stage. Some striking demonstrations

were carried out at Burnley. Thirty hives were placed in the orchard, and the bees were kept from two of the trees, while in bloom, by means of mosquito netting enclosures. One tree bore one apple, while the other bore none. The rest of the orchard was laden with fruit.

HONEY COOKERY.

By Mrs. W. T. Herron.

Mrs. Herron has sent us five well tested recipes and says that she hopes that they will be of some use to beekeepers' wives. The boiled Salad Dressing recipe has been adapted from one appearing in "American Bee Journal," October, 1935. The others are all more or less original. The Marmalade was tried out with a strong-flavoured honey and did not appeal to the taste, but a second boiling with a mild honey was a great improvement and set with a good stiff jelly.

Writing on 9th August, Mrs. Herron says:—"The Gore Branch of the Association put on a good display at the Gore Show. The ladies had a section for bottled fruit in honey-syrup, jams and cookies: no sugar allowed. People were very interested and quite a number asked questions on honey cookery. The bottled fruit made a very attractive display. The Branch display occupied eight feet of bench and the ladies had about the same, half on either side.

"Since then, we have had a lot of snow and although it is all gone now from about the house there is plenty on the hills and, from what we hear, there will be heavy loss of sheep in hill country. We have also had some good frosts, 19 degrees being the worst, and it takes a lot of warming up those mornings, I can tell you, but honey in hot water as a drink first thing is a wonderful starter."

Honey Roll.

Ten ozs. honey, 2ozs. butter, 2 eggs, 6ozs. flour, $\frac{1}{2}$ teaspoon spice, $\frac{1}{2}$ teaspoon ginger, 1 teaspoon baking soda dissolved in 2 tablespoons cold milk.

Warm butter and honey and cream together. Add beaten eggs and beat well. Mix dry ingredients and add to butter, honey and eggs. Lastly, add baking soda in milk. Bake in large flat tin in a moderate oven. Spread with jam and roll at once.

Honey Marmalade.

Six Poorman oranges, 2 lemons, 8 lbs. honey (mild flavour), 14 cups water.

Cut oranges and lemons thinly. Soak in water 24 hours. Boil very hard for one hour. Add honey and boil hard for another hour. Bottle and seal. This must boil very hard or it will not set well.

Boiled Salad Dressing.

Scald one cup milk in double boiler. Blend together: 3 tablespoons flour, 1 teaspoon mustard, 2 teaspoons salt, 1 tablespoon honey (more if liked sweet), pinch cayenne. Add the blend to the slightly beaten yolks of two eggs and then pour the hot milk slowly over the egg mixture, stirring constantly.

Return to double boiler and cook until it thickens. Add slowly $\frac{1}{2}$ cup vinegar and 1 tablespoon butter. Beat in a little at a time the well-beaten whites of two eggs. Strain into glass jars.

This will keep a long time in a cool place. To serve, add cream until thin enough to pour.

Honey Gingerbread.

Two and a-half cups flour, $\frac{1}{2}$ lb. butter, 1 cup sugar, 1 cup milk, small cup honey, $1\frac{1}{2}$ large teaspoons baking soda, 1 dessertspoon ginger, 1 dessertspoon cinnamon.

Cream butter, honey and sugar. Sift dry ingredients and add alternately with milk to creamed mixture.

Bake about 1 hour in moderate oven.

Wheatmeal Scones.

One large cup flour, 1 large cup wheatmeal, pinch of salt, 2 teaspoons cream of tartar, 1 teaspoon baking soda, 2 tablespoons cream (sour if possible), 2 tablespoons honey dissolved in a little hot water in a cup which is then filled with milk (preferably sour).

Sift dry ingredients; add cream, milk and honey. Mix quickly and bake in hot oven. Dates added to mixture make a nice change.

INTERNAL MARKETING DIVISION (HONEY SECTION)

FOR URGENT ATTENTION.

This Season's Crop.

In view of the necessity for handling all foodstuffs, including honey, in the most economical manner and so that full opportunity can be taken for putting the season's production to the best use, producers are asked to advise this office, not later than October 30th, what proportion of their coming season's crop they intend to supply to the Internal Marketing Division, and as soon as possible thereafter an estimate of what this proportion will amount to, the estimate to be corrected from time to time as the season's prospects develop.

It is desired to interfere as little as possible in the voluntary co-operation between Honey Producers and the Internal Marketing Division, but it is, at the same time, essential that producers do not hold up unnecessary quantities of honey in the expectation of private sales when all the honey available will be wanted by the Internal Marketing Division to meet both New Zealand and United Kingdom requirements.

It is anticipated that producers with their usual desire to co-operate will make available a considerable portion or all of their crop, and it is not intended to take any further action unless response to this request falls short of anticipations.

While the Marketing Division wants all the honey it is possible to get, producers are asked to particularly note that there will be no slackening up in the standard of quality required.

This is important in view of what happened in the United Kingdom after the last war. Owing to the limited supply of sugar the British public was forced into buying honey and much of the honey offering was of such inferior quality that the public acquired

a distaste for honey that resulted in a dead market for a long period after the war. Our objective is to maintain the high reputation which our honey already has overseas and also supply the maximum quantity.

With a view to getting supplies as early as possible in December and thereafter, the deduction of 1/16d. per lb. on liquid honey will be removed. Producers are asked, however, to take particular care in the packing of liquid honey as it has been found that considerable damage and loss can result in the package now being used unless special care is taken.

The tin with the closure of a screw cap over a press-in lid, specifications of which are given in Circular No. 6, must be used. The cases should be a good fit all ways, sound timber and well nailed. If a piece of strong corrugated paper is used top and bottom, it would greatly assist safe carriage. Clearly stencil on the top "Liquid Honey—Handle With Care." A stencil for this purpose could quickly be cut out of cardboard and afterwards coated with hot wax.

Extraction Marks.

It would help to avoid confusion if letters were used one year and figures the next: never use the same figure or letter twice in the one season.

Shipping Honey.

North Island producers who are in the vicinity of ports should ship their honey to Auckland. Producers can make their own arrangements for shipping or, if they wish and are shipping through the port of Wellington, could arrange with Messrs. J. O'Brien & Co. Ltd., Customs Agents and General Carriers, 8 Victoria St., Wellington. The Hawke's Bay producers could, if they wish, arrange their shipments through Messrs. Williams & Creagh, Merchants, 3 Tennyson Street, Napier.

Low Grade Honey.

When it is doubtful whether or not a line of honey will pass the grader, producers should send a 1lb. sample, either to the office of the Internal Marketing Division, Auckland, or to the Honey Grader, Department of Agriculture, Auckland, before sending in the whole of the honey in question.

The Grader will advise whether or not the honey will come up to the grade standards. Honey which might fail to qualify are: Kamahi, Ragwort, Pennyroyal, Kie Kie or Estelia, Manuka in bad condition (not properly cleaned or full of air bubbles), Blue Gum, and any other honey with an objectionable flavour or in bad condition.

Honey-tin Lids.

The 60lb. tins used for sending in honey have not, in all cases, been satisfactory in respect of the closure used. With a view to getting to producers information of the most satisfactory type of closure, we have posted to the Secretaries of all Branches of the National Beekeepers' Association two tops of tins with the request that they take any opportunity that offers of showing them to their members.

The press-in lid illustrates the best type of press-in lid, and producers should specify this style when ordering tins. Quite a number of the tins used have had flimsy press-in lids which often come out and, at the best, are a very insecure closure. The double closure (screw cap over a press-in lid) is required when liquid honey is sent in. Actually, it is the best style of closure for all purposes—either for liquid or granulated honey.

Returnable Containers.

A thorough exploration of the possibilities of using a returnable container has been made, and following is an idea which some producers might feel disposed to try out.

A returnable container should be:—

(1) **Not Expensive.** Producers would need sufficient containers for whole crop. For the most part, emptying containers and returning them immediately is impracticable. Following are a few of the reasons which will make this apparent:—

- (a) To blend honey satisfactorily into standard packs, a large part of a season's range is required.
- (b) If it could be done, it is not desirable to pack into retail packages as the honey comes in and to carry the retail packages over a long period.
- (c) There is never any certainty as to the quantity of any pack required throughout the year.
- (d) Working cost and cost of installing plant to blend and pack a whole season's honey in, say, three months, and then having the plant idle the rest of the year, would not be economical. Further, staffing would probably be impossible except during a period of widespread unemployment.

(2) More easily handled than the present two-tin cases. This is to ensure safer carriage and also to avoid objections that are raised to the weight of the present package.

(3) Stack securely and compactly for storage purposes.

(4) Reasonably convenient for getting out the honey.

From the foregoing it will be appreciated that none of the containers in use for other purposes, such as cream cans, petrol drums, etc., answer requirements.

With a view to producers who are sufficiently interested making a trial this season, the following idea is suggested:—

That cases be made or procured which will hold a single double-closure panelled tin such as is used for sending in liquid honey. This tin is now standard, and there should be no difficulty about that. It is the case which will call for attention.

The case will require to be made to fit the tin perfectly, except that the top be $\frac{1}{4}$ -inch larger than the bottom. This is important, as, otherwise, the tin will not come out of the case. The case should shape from a neat fit at the bottom to $\frac{1}{2}$ -inch clearance all round the tin at the top.

Dressed timber is essential. Thicknesses: Top and bottom, $\frac{3}{4}$ -inch; two sides $\frac{3}{4}$ -inch and two sides $\frac{1}{2}$ -inch.

In construction, the $\frac{1}{2}$ -inch sides are securely nailed or screwed to the $\frac{3}{4}$ -inch sides, the bottom is permanently screwed on, and the top is fastened with four screws that can be removed and replaced. If metal sockets to take engineers' screws are obtainable and set into the wood, they will make a permanent job.

If this case were to be strapped around the sides with metal band strapping, say one band four inches from the top and another four inches from the bottom, put on with a tying machine, it should make a case which will carry many times.

The lighter the timber the better. *Pinus Radiata* (*Insignis*), selected for pieces that would not split, should do.

If any producers care to procure or make a few cases for trying out this season, we will undertake to empty and return them as promptly as we can, so that they can be tried out over as many trips as possible.

The cases should be well made with a view to their being a permanent fixture. We would expect a well-made case of this description to last a few seasons. The tins should also last out a number of trips, while replacement would not be costly.

Sugar for Bees,

There will be no difficulty in getting sugar for bee-feed if producers will follow out the following procedure:—

The beekeeper applies to this office, stating his estimated requirements for the year and answering the questions set out under the sub-heading "Details Required." Then he forwards his application on to the Apiary Instructor for the district for certification, and the Apiary Instructor will forward it to us, when we will arrange with the Colonial Sugar Refining Co., Ltd., to make supplies available to the merchant or grocer nominated.

Each applicant is given a considered quantity in view of the fact that the amount stated cannot be other than an estimate of the season's requirements.

It is then for the applicant to make a further application in due course, should the amount provided not be sufficient for his needs.

Under the present circumstances, low-grade honey for feeding bees

should be used as far as possible. At the same time, however, every effort will be made to see that the producer gets sufficient to bring his bees through in the right condition, but any effort to obtain an amount in excess of requirements is to be discouraged.

Application for Sugar—Details Required.

Amount required:.....
 From whom purchase to be made:.....
 Amount purchased last year:.....
 Amount on hand:.....
 Reason why supplier will not supply this year:.....
 Certification by local Apiary Instructor:.....
 Number of hives:.....

Honey Seals on Cartons.

In accordance with representations made by the National Beekeepers' Association, we have made arrangements for the printing of honey seals on their cartons with Messrs. Frank M. Winstone (Merchants) Ltd., of Customs Street, Auckland, distributors of both "Cardea" and "Monocon" honey cartons.

It will be necessary for any beekeeper desiring to use these printed lids in preference to buying adhesive seals from us, to send a remittance to this Division, Auckland, covering the value of the seal-stamped lids involved, at least ten days before his honey cartons ordered from his suppliers are due to be despatched.

Please note that cash must accompany orders unless the producer has honey in the Internal Marketing Division's store on which no advance has been made. Failure to observe this requirement will hold up the delivery of orders.

There is no extra charge for this new facility, the seal-stamped lids being supplied for the same amount paid to this Department as would have been paid for adhesive seals.

Honey cartons are available in three sizes: $\frac{1}{2}$ lb., which will have a red $\frac{1}{4}$ d seal printed on the lid; 1lb., which will have a green $\frac{3}{4}$ d seal printed on the lid; and 2lb., which will have a blue 1d seal printed on the lid. The minimum number of seal-stamped lids

supplied will be 50 of any one denomination.

No doubt the service that we have arranged for apiarists with Messrs. F. M. Winstone (Merchants) Ltd. will be fully appreciated, in view of the amount of work involved in placing adhesive seals on containers, and, in return, the Internal Marketing Division (Honey Section) asks beekeepers' co-operation in seeing that notification is sent to this office along with the necessary funds for seal-stamped lids, in ample time, so that the suppliers can be authorised to supply seal-stamped lids and orders despatched without delay.

Messrs. Frank M. Winstone (Merchants) Ltd. desire us to say that it will be presumed in all cases that plain lids will be required, unless instructions are given to send stamped lids.

BEEKEEPING IN SCOTLAND.

Read "The Scottish Beekeeper," edited by Harry Anderson, 186 Forest Avenue, Aberdeen, Scotland. Official Organ of the Scottish Beekeepers' Association. Published monthly, 3/- per annum.

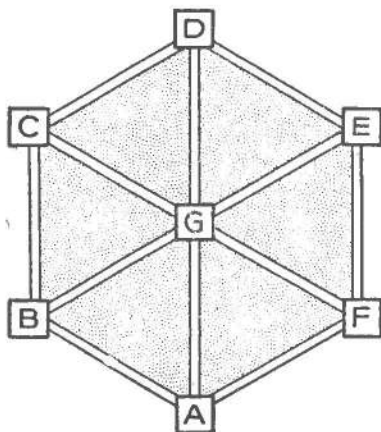
"THE N.Z. BEEKEEPER"

This Journal is issued free to all members of the National Beekeepers' Association of N.Z. Future numbers will not be forwarded to members who are in arrears with their subscriptions to the Association.

Subscription rates for the Journal are 2/- per annum, 6d. per copy, post free. Please notify any irregularity in receipt of the Journal to the Editor.

Literary contributions and advertisements must be in the hands of the General Secretary, National Beekeepers' Association of N.Z., Pungarehu, Taranaki, N.Z., not later than the first of month of publication.

Nom-de-plume letters must be signed by the writer and address given, not necessarily for publication, but as proof of good faith. Letters accepted for publication do not necessarily express the views of the Editor.



APICULTURE.

An eccentric beekeeper laid out his seven hives as shown in the diagram, one at each corner of the hexagon and one in the centre. These he connected by paths as indicated.

Starting from hive "A" and moving always in an upward direction, in how many different ways could he reach hive "D"?

ADVERTISEMENT RATES.

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WANTED TO BUY—Cappings Reducer and 4 or 6-frame Power Extractor. Full particulars to Citrus Apiaries, Keri Keri Central, Bay of Islands.

FLOWERS FOR BEES.

To attempt to provide for the need of bees in the matter of honey producing flowers within the area of an ordinary garden is to attempt the impossible. At the same time one may as well grow flowers that will interest the bee, for the shorter the distance the bees have to travel the more rapidly will the store of honey grow, and it is always advisable to encourage the bees for the sake of the fruit trees.

Of annuals that are easily raised from seed and grown in quantity are the sweet alyssum, the honey-like fragrance of which is noticeable while it is a persistent bloomer. *Limnanthes Douglasii*, another annual, is another

good honey flower. Very valuable among annuals is *phacelia tanacetifolia*. It is not very showy in the garden but is beloved of bees.

Other useful annuals for the purpose are *mignonette*, *borage*, *sunflower*, *cilene* and *nasturtium*; while *wallflowers* and *forget-me-nots* may be included among seed raised subjects.

Among perennials are *hollyhocks*, *anchusas*, *campanulas*, and the *globe thistles*. These latter rank high and in America are grown by the acre for the bees' benefit. Of trees and shrubs nothing is better than access to fruit orchards. The season of flowering is a short one, but the harvest of nectar is heavy.

WHEN BEES ENTER THE CAR.

DANGEROUS SWATTING IS NOT NECESSARY.

Many accidents have been caused by a bee flying into a car, causing the driver to run off the road while taking energetic measures to prevent himself from being stung. Such accidents are needless, for a bee in a moving car rarely stings.

There are two reasons for this. A bee rarely attempts to sting when under a roof. This fact is so well known that visitors to apiaries are led under a roof to escape from bees that may prove annoying.

Noise, vibration and movement of

a car, plus the shock of being swept unexpectedly through a window or ventilator, does not have the anticipated effect of enraging the normally peaceful bee. Instead, the insect becomes so confused that usually its only purpose is immediate escape. Smacking at it is the only likely way of being stung.

Another point is that, if the bee makes a loud, strident buzz, and the body is short, as though the back portion has been cut off, it is a male, or drone, which has no sting.

HOW THE BEES TELL.

THE TRAIL OF SCENT.

Professor von Frisch of Munich, studying the problem of how bees communicate with each other in their quest for honey, has made a discovery.

When a bee finds food it at once brings a scent gland into operation, emitting an odour which forms a trail of scent in the air as the bee flies back to its hive in a straight line.

The bee repeats this as it flies back to the newly-found source of food, and this trail is followed by the other bees and leads them to the food.

The scent glands are on the bee's back and the odour is spread as it flies by the movement of its wings. Thus it is by smell and not by sound that such information is spread from one bee to its sisters.

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